

**Summary Minutes of the
U.S. Environmental Protection Agency (EPA)
Science Advisory Board (SAB)
Mountaintop Mining Panel
Public Teleconference
October 26, 2010**

Date and Time: Tuesday, October 26, 2010, 1:00 P.M. – 2:30 P.M. ET

Location: Teleconference Only

Purpose: The purpose of the October 26th teleconference call was for the Mountaintop Mining Panel to discuss substantive comments from Panel members on the draft SAB report, *“Review of the Effects of Mountaintop Mines and Valley Fills on Aquatic Ecosystems of the Central Appalachian Coalfields”*.

Participants:

SAB Panel: Mountaintop Mining Panel of the U.S. Environmental Protection Agency’s (EPA) Science Advisory Board (SAB)
(See Roster, Attachment 1)

Dr. Duncan Patten, Chair
Dr. Elizabeth Boyer
Dr. William Clements
Dr. James Dinger
Dr. Gwendolyn Geidel
Dr. Kyle Hartman
Dr. Robert Hilderbrand
Dr. Alexander Huryn
Dr. Lucinda Johnson
Dr. Thomas W. La Point
Dr. Samuel N. Luoma
Dr. Douglas McLaughlin
Dr. Michael C. Newman
Dr. Todd Petty
Mr. Edward Rankin
Dr. David Soucek
Dr. Bernard Sweeney
Dr. Philip Townsend
Dr. Richard Warner

Dr. La Point and Dr. Newman could not participate at the teleconference.

EPA SAB Staff: Ed Hanlon, Designated Federal Officer
Stephanie Sanzone, Designated Federal Officer
Dr. Anthony Maciorowski, Deputy Director, EPA
Science Advisory Board Staff Office
Dr. Vanessa Vu, Director, EPA Science Advisory
Board Staff Office

EPA Presenters: Dr. Susan Norton, EPA Office of Research and
Development (ORD)
Dr. Michael Slimak, EPA ORD

Other Attendees: A list of members of the public who requested information
to call into the teleconference is provided in Attachment 2,
Public Attendance.

Materials Available: The agenda and teleconference materials were circulated to the Mountaintop Mining Panel in advance of the teleconference. These materials were made available to the public via the SAB website (www.epa.gov/sab). The teleconference materials are available on the following SAB Mountaintop Mining Panel October 26, 2010 teleconference website:

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/be12e79bb96644bf85257788006b9b1c!OpenDocument&Date=2010-10-26>.

Meeting Summary

The meeting was announced in the Federal Register¹ and proceeded according to the meeting agenda². A summary of the meeting follows.

Opening Statements and Welcome

Mr. Ed Hanlon, the Designated Federal Officer (DFO), opened the teleconference, and made a brief opening statement. He noted the teleconference was open to the public, and that the Mountaintop Mining Panel is a Federal Advisory Committee under the Federal Advisory Committee Act (FACA). He stated that on August 23, 2010, the Panel received a draft SAB report on "*Review of the Effects of Mountaintop Mines and Valley Fills on Aquatic Ecosystems of the Central Appalachian Coalfields*" for review. He noted that this draft SAB report incorporated key points made at the July 20-22, 2010 Mountaintop Mining Panel public meeting. He stated that the Panel's comments on the 8/23/10 draft SAB report were incorporated into the 9/28/10 draft SAB report that was the subject of discussion for the teleconference, and noted that this 9/28/10 draft SAB report was on the 10/26/10 SAB teleconference website. He stated that no members of the public had requested to present an oral statement during the 10/26/10 teleconference, and that no sets of written public comments for the 10/26/10 teleconference were received. He also noted that minutes of the teleconference were being taken to summarize discussions and action items in accordance with requirements under FACA. He then turned the teleconference call over to the Chair, Dr. Duncan Patten.

Dr. Duncan Patten welcomed everyone and noted this is an Advisory effort where a report seeking consensus was being prepared. He reviewed the agenda for the teleconference call, and noted that after discussion occurs on members' individual comments on the draft SAB report, he would then ask if there is any objection to sending the updated draft report with changes

incorporated to the chartered SAB for final approval. He stated that the chartered SAB would conduct a quality review of the draft report and focus on the following questions: a) are the original charge questions to the SAB Mountaintop Mining Panel adequately addressed in the draft report; b) is the draft report clear and logical; and c) are conclusions drawn and/or recommendations made supported by information in the body of the draft report. He then introduced Dr. Michael Slimak of EPA's Office of Research and Development (ORD) for his remarks.

EPA Remarks

Dr. Michael Slimak of EPA ORD thanked the Panel for their efforts. He noted that ORD reviewed the 9/28/10 draft SAB report and requested clarification on several portions of the draft report. Dr. Susan Norton of EPA ORD then asked the Panel to clarify six portions of the report:

Regarding page 10, line 38, Dr. Norton asked what is meant by productivity potential. In response, one member of the Panel noted that productivity potential referred to the potential of the stream to produce biomass (i.e., the potential biological productivity).

Regarding page 27, line 4, Dr. Norton requested that in addition to the West Virginia Department of Environmental Protection (WVDEP) report, are there particular references on the effects of selenium that the panel would recommend. In response, a Panel member noted that there were a few references that could be recommended, and the member would include those citations to the references section of the updated draft SAB report.

Regarding page 27, lines 26 and 36, Dr. Norton noted that these two sentences discussing the sensitivity of mussels to ions appear to be contradictory. In response, a Panel member stated that these sentences would be reworded in the updated draft SAB report.

Regarding page 31, line 15, Dr. Norton asked whether the peer-reviewed symposia papers mentioned here were included in the bibliography, and if so, which ones they were. In response, a member noted that the Society of Mining and Reclamation published papers that were referred to in this section of the draft SAB report, and noted that those references would be cited in the references section of the updated draft SAB report.

Regarding page 47, line 20, Dr. Norton asked whether the impacts on the temperature regime discussed here were from reclamation activities or from the original mining activity. In response, a member noted that the Panel would try to clarify this in the updated draft report.

Regarding Appendix 1 References, Dr. Norton requested that for cited reports and symposium papers, annotations be provided to the references with information on the extent to which these references have undergone peer review external to the authoring organization. In response, a member noted that a number of the papers were from proceedings from annual conferences. In addition, the ORD could note which journals and publications the articles were published in, and separately assess the peer review requirements associated with publishing in those journals and publications.

Dr. Patten then commenced discussion on the draft SAB report, in order of the draft responses to each charge question. He noted that Panel members could send minor editorial comments to the DFO for incorporation into the draft SAB Report after the teleconference and before the chartered SAB reviewed the draft SAB Report for final approval.

Discussion on Charge Questions:

Charge Question 1: Conceptual Diagram

The Panel generally agreed with the tone and direction of the draft SAB report response to this charge question. One member agreed with the draft SAB Report's recommendations to place the conceptual model near the beginning of the draft EPA report and use it as an organizing tool for the remainder of the document.

Charge Question 2: Literature Review

The Panel generally agreed with this section of the draft report. Dr. Patten requested that Panel members send the DFO an email noting whether if any citations that they provided had undergone peer review external to the authoring organization, if they knew of such peer review.

Charge Question 3: Loss of Headwater Streams

The Panel discussed the definition of headwater, ephemeral and intermittent streams, and referred to the discussion on this topic within the draft report's response to charge question 1. After discussion, the Panel generally agreed that the response to charge question 1 adequately presented the Panel's views on this topic.

A member recommended that revisions occur to the draft report's comments on the lack of depth of EPA's report regarding the loss of biodiversity (page 18, section 4.3.2.3). The member recommended that these comments should refer to and be consistent with discussion later in the draft report on this topic, such as page 27's discussion on sensitivity of mussels and other organisms. The member also noted that the Panel's recommendations on restoration activities on page 40 of the draft SAB report should be reviewed for consistency with this discussion. The member agreed to send the DFO revised text to these sections of the draft report after the teleconference.

Charge Question 4: Downstream Water Quality and Stream Biota

The Panel generally agreed with the draft SAB report response to this charge question. The Panel discussed the statement on page 23, line 15, regarding MTM-VF impacts to macroinvertebrate and fish communities, and whether impacts were documented to fish communities. Dr. Norton noted that fish data were included in EPA's draft report on page 56, Table 13. Upon discussion, the Panel agreed that the impacts were broad and general, and that the report would be revised to state that impacts were to 'aquatic communities' rather than to 'macroinvertebrate and fish communities'.

Charge Question 5: Cumulative Ecological Impacts

A member noted that the discussion on page 33, Section 4.5.2.3., on River Continuum should be clarified. In addition, the member recommended that the discussion on page 35 under Section 4.5.2.5. on synergistic impacts should be reorganized to differentiate the discussion when separate topics were discussed. The Panel discussed and agreed to make these recommended changes to the draft SAB Report.

Charge Question 6: Effectiveness of Restoration Methods

A Panel member requested Panel feedback on the draft Report's discussion on creation of streams in valley fill areas. The member expressed concern that the draft Report stated that it was not possible to reconstruct an intermittent stream, and noted that data have been submitted to the National Academy of Science on successful creation of streams on fill. Several members raised concerns about relying on and citing unpublished reports within SAB's advice on this topic. The Panel discussed stream creation on intermittent and headwater streams and considered whether to change the draft Report to address these concerns. Upon discussion, the member who raised concerns and the other Panel members on the teleconference agreed that the text regarding this topic in the 9/28/10 draft SAB Report was satisfactory and did not need to be changed.

Another member noted that in the draft Report's discussion on offsite mitigation, the topic of onsite restoration should not be discussed. The Panel agreed to revise the draft Report to separate these topics in order to improve the report's clarity.

Dr. Patten asked whether Panel members had any comments on the draft Report's executive summary or cover letter. A member noted that changes made to the 8/23/10 draft SAB Report adequately addressed Panel's comments to the 8/23/10 draft, and stated that no additional changes were needed to these sections of the draft Report.

After hearing no additional comments, Dr. Patten then discussed next steps and action items. He noted that several members agreed to send revised wording changes and edits to the DFO after the teleconference, and that he and the DFO would incorporate those edits into a revised draft Report that would be sent to the chartered SAB for quality review and approval. He asked whether any Panel members were uncomfortable with these next steps, and heard no objections from the Panel.

Drs. Patten and Slimak expressed thanks to the MTM-VF Panel members. With the meeting business concluded, the Designated Federal Officer adjourned the teleconference at 2:30 pm ET.

Respectfully Submitted:

Certified as Accurate:

/signed/

/signed/

Mr. Edward Hanlon
Designated Federal Officer

Dr. Duncan Patten, Chair
Mountaintop Mining Panel

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by Panel members during the course of deliberations within the meeting. Such ideas, suggestions and deliberations do not necessarily reflect consensus advice from the Panel members. The reader is cautioned to not rely on the minutes to represent final, approved, consensus advice and recommendations offered to the Agency. Such advice and recommendations may be found in the final advisories, commentaries, letters or reports prepared and transmitted to the EPA Administrator following the public meetings.

Materials Cited

The following meeting materials are available on the SAB website: <http://www.epa.gov/sab>, at the October 26, 2010 teleconference website:

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/be12e79bb96644bf85257788006b9b1c!OpenDocument&Date=2010-10-26>:

¹ Federal Register Notice Announcing the Teleconference

² Agenda for October 26, 2010 Public Teleconference

Attachment 1: Roster

U.S. Environmental Protection Agency Science Advisory Board SAB Advisory Panel on Ecological Impacts Associated with Mountaintop Mining and Valley-Fills, and Aquatic Life Benchmark for Conductivity

CHAIR

Dr. Duncan Patten, Montana State University, Bozeman, MT

MEMBERS

Dr. Elizabeth Boyer, Pennsylvania State University, University Park, PA

Dr. William Clements, Colorado State University, Fort Collins, CO

Dr. James Dinger, University of Kentucky, Lexington, KY

Dr. Gwendolyn Geidel, University of South Carolina, Columbia, SC

Dr. Kyle Hartman, West Virginia University, Morgantown, WV

Dr. Robert Hilderbrand, Appalachian Laboratory, University of Maryland Center for Environmental Science, Frostburg, MD

Dr. Alexander Huryn, University of Alabama, Tuscaloosa, AL

Dr. Lucinda Johnson, University of Minnesota Duluth, Duluth, MN

Dr. Thomas W. La Point, University of North Texas, Denton, TX

Dr. Samuel N. Luoma, University of California, Davis, Sonoma, CA

Dr. Douglas McLaughlin, National Council for Air and Stream Improvement, Kalamazoo, MI

Dr. Michael C. Newman, College of William & Mary, Gloucester Point, VA

Dr. Todd Petty, West Virginia University, Morgantown, WV

Mr. Edward Rankin, Ohio University, Athens, OH

Dr. David Soucek, University of Illinois at Urbana-Champaign, Champaign, IL

Dr. Bernard Sweeney, Stroud Water Research Center, Avondale, PA

Dr. Philip Townsend, University of Wisconsin - Madison, Madison, WI

Dr. Richard Warner, University of Kentucky, Lexington, KY

SCIENCE ADVISORY BOARD STAFF

Mr. Edward Hanlon, Designated Federal Officer, U.S. Environmental Protection Agency, Science Advisory Board Staff, Washington, DC

Ms. Stephanie Sanzone, Designated Federal Officer, U.S. Environmental Protection Agency, Science Advisory Board Staff, Washington, DC

Attachment 2: Public Attendance

List of Members of the Public Who Requested Information for Calling into the Public Teleconference of the SAB Mountaintop Mining Panel

October 26, 2010

Name	Affiliation
Butler, Barbara	USEPA
Casey, Thomas L. III	Balch & Bingham LLP
Connolly, Megan	National Mining Association
Dunn, Margaret H.	Stream Restoration Incorporated
Faulkner, Ben	National Mining Association
Gensemer, Robert	GEI Consultants
Hagman, Anthony	National Mining Association
Hershkowitz, Allen	Natural Resources Defense Council
Isa, Jalil	USEPA
Janes, Margaret	Appalachian Center for the Economy and the Environment
Juliano, Nick	Inside EPA
Klasen, Matt	USEPA
Marsh, Joanna Franco	Argus Media
McAllister, Andy	WPCAMR
Mitchell, Josh	Dow Jones Newswires and The Wall Street Journal
Moline, Heidi	Union of Concerned Scientists
Reash, Rob	Utility Water Act Group Member Company, AEP
Sachau, B	Whitehouse Station, NJ
Saiyid, Amena H.	US Coal Group
Wade, Donald C.	Tennessee Valley Authority